

Level 3: Years 3 & 4

Term 4, 2008

Parkhill Primary School Mathematics Program

For program modification: see weekly planner. Resource material and page numbers included in this plan

Date	VELS	Focus Topics	Activities	Mental & Number Strategies	Resources	Assessment
Week 1 Oct 6	Number PP 2.5 • use of strategies such as 'near doubles', 'adding 9' and 'build to next 10' to solve addition and subtraction problems PP 2.5 use of written methods for whole number problems of addition and subtraction PP 2.75 • use of algorithms for the addition and subtraction of numbers to two decimal places Structure 2.5 • variation of order and grouping of addition (commutative and associative property) to facilitate computations; for example, $3 + 5 + 7 + 5 = 3 + 7 + 5 + 5 = 10 + 10 = 20$	Number <u>Addition</u> Addition of money Two, Three & up to 4 digit addition- with and without trading Problem solving Mental strategies eg rounding off <u>Subtraction</u> Subtraction strategies Two and three digit subtraction with trading Subtraction patterns Subtraction stories – problem solving	Addition wheels Using class shop for money transactions Making total by adding coins Choosing pairs of numbers that make a given total Using dice in addition game Subtracting numbers with same last digit and finding the pattern Using calculators Make 'subtraction story' book Making pairs and finding their difference Writing number stories	Tables 5x 10 x Mental Maths D & E Unit 31 Adding two-digit numbers mentally Using different mental strategies including compensation Oral subtraction of 10s and 100s. Pairs to make 20 and related subtraction facts	Targeting Maths Yr 3 Natural Maths Maths Tracks 3A & 3B ICT - Digilearn L5977 Balance the Cup –Use the rule	Term 4 pre test Number facts test
Week 2 Oct 13	Number PP 2.75 • representation of multiplication as a rectangular array and as the area of a rectangle WM PP 2.75 • rephrasing of a problem or representing it using a physical model, diagram, list or table as a problem solving strategy	Number <u>Multiplication</u> Writing multiplication facts Products Multiples Problem solving WM Working Backwards strategy	Colouring multiples on hundred square Writing 'x' problems Writing number stories Fact game Multiply and add Finding products Use of number board Problem solving cards	Tables 2, 4 & 8x tables Mental Maths D & E Unit 32 Multiples Stating products Giving factors of products	Counters, coloured pencils, calculators, numeral cards, hundred squares; Tables charts for display in classroom ICT - Digilearn L2053 Word Problems using Arrays with products Strategy 8 p25 Maths Problem Solving Techniques	Multiplication test Processes Pre test Level Moderation – Guess & Check strategy using PP indicator (Maths Continuum)
Week 3 Oct 20	Number PP 2.25 - checking of accuracy of calculations with a calculator PP 2.75 • use of fact families ($5 \times 7 = 35$, $35 \div 7 = 5$) to solve division problems	Number <u>Division</u> Money division The division sign Using the division sign Remainders	Continual division Writing division problems Share the stars Calculator versus memory Left overs Investigative task	Tables 3, 6 & 9x tables Mental Arithmetic D & E Unit 33	Targeting Maths Yr 3 Investigative Task 3 Maths Tracks 3A & 3B <i>Makeover cafe</i> (3A) <i>Our Family Holiday</i> (3B) ICT - Digilearn Divide it up Kittens L2812	Pre test & Post test Division Portfolio piece Natural Maths 3 Maths Plus Assessment Number testing
Week 4 Oct 27	MC & D PP 2.25 • use of formal units of measurement; for example, metres to measure length, and hour, minute and second for time • application of estimations using personal units, such as pace length and arm span, and comparison with measures using formal units, such as metres and centimetres • use of ruler and tape measure (linear scale) and trundle wheel (circular scale) to validate estimates of length PP 2.5 • estimation and measurement of mass, volume and capacity of common objects; for example, kilogram of flour, litre of soft drink	Measurement Chance & Data <u>Length, Area & Perimeter</u> Centimetres Centimetres and metres Informal area Square centimetres for area <u>Volume</u> Investigating the volumes of different 3D shapes using blocks of varying sizes WM Making a Diagram Strategy	A 'Measure Hunt' Playground measurements Area of hands and feet Wrapping presents An area picture Making 3D shapes using blocks 'Housing estate' Investigation Predicting how many blocks will fit into cardboard cartons (prisms) comparing and ordering volume using standard units Problem solving cards Mathletics, MP Lab 3 (CD)	Tables 6 & 12x Mental Arithmetic D & E Unit 34 Changing metres to cm and vice versa Counting in 10 cm ots orally	Targeting Maths Yr 3 Natural Maths Unit 2 Blocks & MAB mini's Cardboard cartons Solve That Problem pp 5 Maths Problem Solving Techniques Strategy 1 p5 ICT - Digilearn 'Area Counting with Coco' L137	Pretesting MC&D
Week 5 Nov 3 Curriculum Day Cup Day	MC & D PP 2.5 Identification of events which are equally likely PP 2.75 Comparison of the likelihood of everyday events and linking of events with statements about how likely they are to occur	Measurement Chance & Data Chance statements Possible outcomes Using chance vocabulary	Recording outcomes Making predictions Finding the best route My lunch box Surveying information about how to save forests, presenting data as graph (Action task) Mathletics, MP Lab (CD)	Tables 7 x 11x Mental Arithmetic D Unit 35 Timed addition wheels Place value revision	Targeting Maths Yr 3 & 4 Natural Maths Unit 5 Action Literacy, 'The Future of Forests', pp 80-82 ICT - Digilearn Bar Chart L3512 Vile Vendor L226	Pretest Tables testing

Date	VELS	Focus Topics	Activities	Mental & Number Strategies	Resources	Assessment
Week 6 Nov 10	MC & D PP 2.5 - Representation of angles formed dynamically; for example, between the hands of a clock or between their own limbs, and explanations of these angles in terms of simple fractions of a complete revolution Working Mathematically PP 2.75 • rephrasing of a problem or representing it using a physical model, diagram, list or table as a problem solving strategy	Measurement Chance & Data <u>Time</u> Estimating and measuring time to seconds, minutes & hours a.m. and p.m. Time facts revise <u>Angles</u> Angle types Acute, right, obtuse Vertex and arms WM Make a list strategy	Using stopwatch to predict and measure everyday activities Identifying events that take seconds minutes and hours to complete Clockface angles; Angle tester; Drawing angles; Poster; Angles in 2D shapes Problem solving cards Mathletics, MP Lab 3 & 4	Mental Arithmetic D Unit 36 Revise all tables Conversion of seconds to minutes & hours	Targeting Maths Yr 3 & 4 Maths Tracks 3A & 3B ICT - Digilearn <i>Time Match</i> L3549 Solve that Problem p 61 Strategy 5 Mathematics Problem Solving techniques p18 Mathletics, MP Lab 3 & 4	Processes test Tables & number facts test - mixed Maths Plus Measurement Moderation Task Natural Maths 3
Week 7 Nov 17	M C & D PP 2.5 - Estimation and measurement of mass, volume and capacity of common objects; for example, kilogram of flour, litre of soft drink	Measurement Chance & Data Mass Mass at the greengrocer Grams and kilograms Using scales Capacity Holds most – holds least The litre	Class mass Team competition guessing mass Playground activities Using 'mass' words Comparing weights Revising all time facts Guessing weights; Ordering mass; Bar graphs; Research; Mass in grams; Estimating capacity Measuring with informal measures Investigation of how many cups can be filled from a bottle Mathletics, MP Lab 3 & 4	Tables 3 x & 4 x Mental Arithmetic D Unit 37 Revise all tables Changing m to cm and vice versa Counting in 10 cm lots orally Revise measurement - mm→cm→m Revise all tables learnt	Natural Maths Targeting Maths Yr 3 & 4 Maths Tracks 3A & 3B Investigative task 4 Shopping on a Budget (3A) A Day in the City (3B) ICT - Digilearn <i>Squirt</i> L1995	Term 4 Testing of all areas for reporting Maths Plus Assessment
Week 8 Nov 24	Number PP 2.25 • use of fractions with numerators other than one; for example, 3/4 of a block of chocolate PP 2.5 • development and use of fraction notation and recognition of equivalent fractions such as 1/2 = 4/8, including the ordering of fractions using physical models	Number-Fractions Equal fractions Comparing fractions Comparing hundredths Decimals and money	Drawing fraction diagrams Making equivalence charts Patterning using fractions Number lines Shopping Mathletics, MP Lab 3 & 4	Tables 3x 6x & 9x Mental Arithmetic D & E Unit 38 Stating amounts as dollars or cents Converting fractions to decimals and vice versa	Targeting Maths Yr 3 & 4 Maths Tracks 3A & 3B ICT - Digilearn <i>Fraction pieces</i> L3520 <i>Fractions naming</i> L3523	Processes Test No. Facts Tests
Week 9 Dec 1	Number PP 2.75 • use of place value (as the idea that 'ten of these is one of those') to determine the size and order of decimals to hundredths Structure PP 2.25 • knowledge of the effect of multiplying by ten on the location of the decimal point in a number WM PP 2.25 • identification of pattern and similarity in data sets and shapes, and use of pattern, often by observing a set of simpler situations, as a problem solving strategy	Number <u>Decimals</u> Hundredths 100 parts – using hundred squares Naming hundredths as fractions and decimals Showing hundredths using hundred squares WM Look for a pattern strategy	Representing given decimals diagrammatically How many more make one whole? Decimal and fraction matches Investigating items that are in groups of 100, eg century Dollars and cents – writing both ways Using a calculator Problem solving cards Mathletics, MP Lab 3 & 4	Tables 7x Mental Arithmetic D & E Unit Unit 39	Targeting Maths Yr 3 & 4 Maths Tracks 3A & 3B Solve That Problem pp 75 Mathematics Problem Solving techniques Strategy 5 p18	
Week 10 Dec 8 CAMP WEEK	Space PP 2.25 • determination of approximate north by considering the position of the sun • use of a grid to refer to objects on a map 2.5 • orientation of north, south, east and west from their own current position	Position & Mapping Using position words and finding position Following directions Island maps All possible paths	Compass points Following a mystery path Writing directions Using an atlas Drawing an island map Orienteering Mathletics, MP Lab 3 & 4	Mental Arithmetic D & E Unit 40 Left and right activities North, south, east and west activities Using position words	Targeting Maths Yr 3 & 4 Compasses, atlases & calculators	
Week 11 Dec 15		Revision of all areas	Christmas Shopping activities using catalogues - spending money		Calculators, catalogues	